CLAIMS

What is claimed is:

1.   An Internet server appliance platform for providing a configurable integrated suite

of processing resources and content delivery capabilities supporting continuous

5   data flow demands as well as bursty demands, said server platform comprising:

at least one administration module having a first external network interface,

a first internal network interface, a first administration processor, and a first data

switch, said first data switch providing data switching between said first internal

and first external networks, to and from said first administration processor;

10   a plurality of blade devices communicably interconnected to said first data

switch via said first internal network, each blade device adapted to exclusively

provide either processing functionality or storage functionality thereby enabling a

flexible ratio of processing-to-storage units to be realized in a system

configuration; and

15   at least one administration link disposed between said first administration

processor and said blade devices for support of software control, configuration and

maintenance operations.

2.   The system as set forth in Claim 1 wherein said first data switch comprises an

Ethernet switch and said first internal network is an Ethernet bus.

20   3.   The system as set forth in Claim 1 wherein said first data switch comprises an

InfiniBand switch and said first internal network is an InfiniBand bus.

4. The system as set forth in Claim 1 wherein each blade which provides exclusively

processing functionality is adapted to provide signal processing functionality

coupled with general purpose processing functionality.

6. The system as set forth in Claim 1 wherein said administration link comprises an

5 I²C link.

7. The system as set forth in Claim 1 further comprising a local data storage bus

disposed between pairs of said blades such that each blade is interfaced to only one

other blade thereby providing for direct communications between processing

blades and storage blades.

10 8. The system as set forth in Claim 1 further comprising:

a second, redundant administration module having a second external

network interface, a second internal network interface, a second administration

module, and a second data switch, said second data switch providing data

switching between said second internal and second external networks, to and from

15 said second administration processor;

a plurality of blade devices communicably interconnected to said first data

switch via said first internal network, and further communicably interconnected to

said second data switch via said second internal network, each blade device

adapted to exclusively provide either processing functionality or storage

20 functionality thereby enabling a flexible ratio of processing-to-storage units to be

realized in a system configuration; and

at least one additional administration link disposed between said second

administration processor and said blade devices for support of software control,

configuration and maintenance operations.

9.   A method for providing an Internet server appliance platform having a

5   configurable integrated suite of processing resources and content delivery

capabilities for supporting applications with continuous data flow demands as well

as bursty demands, said method comprising the steps of:

providing at least one administration module having a first external

network interface, a first internal network interface, a first administration

10   processor, and a first data switch, said first data switch performing data switching

between said first internal and first external networks, to and from said first

administration processor;

providing a plurality of blade devices communicably interconnected to said

first data switch via said first internal network, each blade device being adapted to

15   exclusively provide either processing functionality or storage functionality thereby

enabling a flexible ratio of processing-to-storage units to be realized in a system

configuration; and

providing at least one administration link disposed between said first

administration processor and said blade devices for support of software control,

20   configuration and maintenance operations.

10.   The method as set forth in Claim 9 wherein said step of providing a first data

switch comprises providing an Ethernet switch, and wherein said step of providing

a first internal network comprises providing an Ethernet bus.

11.   The method as set forth in Claim 9 wherein said step of providing a first data

switch comprises providing an InfiniBand switch, and wherein said step of

providing a first internal network comprises providing an InfiniBand bus.

12.   The method as set forth in Claim 9 wherein said step of providing a plurality of

blade devices comprises providing blade devices which are adapted to execute

signal processing software on digital signal microprocessor hardware coupled with

executing general purpose software on general purpose microprocessing hardware.

13.   The method as set forth in Claim 9 wherein said step of providing an

administration link comprises providing an I^2C link.

14.   The method as set forth in Claim 9 further comprising the step of providing a

plurality of local data storage buses disposed between pairs of said blades such that

each blade is interfaced to one and only one other blade, thereby allowing a direct

data communications between processing blades and storage blades.

15.   The method as set forth in Claim 9 further comprising the steps of:

        providing a second, redundant administration module having a second

external network interface, a second internal network interface, a second

administration module, and a second data switch, said second data switch

providing data switching between said second internal and second external

networks, to and from said second administration processor;

providing a plurality of blade devices communicably interconnected to said

first data switch via said first internal network, and further communicably

interconnected to said second data switch via said second internal network, each

blade device adapted to exclusively provide either processing functionality or

5   storage functionality thereby enabling a flexible ratio of processing-to-storage units

to be realized in a system configuration; and

providing at least one additional administration link disposed between said

second administration processor and said blade devices for support of software

control, configuration and maintenance operations.

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